

Ohio Sea Grant College Program

Call for Research Proposals

The Ohio Sea Grant College Program is requesting proposals for one- or two-year research projects on Great Lakes issues with particular significance to Lake Erie and its watershed. Specific research funding priorities are outlined below. Proposals should not exceed **\$100,000 per year**, including indirect costs. Approximately \$600,000 is available in each project year (February 1, 2026 to January 31, 2027 and February 1, 2027 to January 31, 2028).

An additional \$40,000/year (\$80,000 total) may be requested by proposals that fill gaps in data or knowledge about the economic impacts, market opportunities, and drivers of business development and success in Ohio aquaculture. Proposals in this priority area can ask for up to \$140,000 per year (\$280,000 total). Please see the Research Priorities in Appendix 1 for specific examples.

Pre-proposal Deadline: Ohio Sea Grant must receive a PDF version on its web page ohioseagrant.osu.edu/research/submit by **5:00 pm Eastern Thursday, February 20, 2025.**

Full Proposal Deadline: Ohio Sea Grant must receive a PDF version on its web page ohioseagrant.osu.edu/research/submit by **5:00 pm Eastern Thursday, May 8, 2025.**

Ohio Sea Grant's Strategic Plan and Funding Priorities

Ohio Sea Grant is one of 34 state Sea Grant programs that are part of the National Sea Grant College Program (National Oceanic and Atmospheric Administration, U.S. Department of Commerce). Ohio Sea Grant has four main research foci: 1) Healthy Coastal Ecosystems, 2) Sustainable Fisheries and Aquaculture, 3) Resilient Communities and Economies, and 4) Environmental Literacy and Workforce Development. Ohio Sea Grant also works with the Ohio Lake Erie Commission (OLEC), Ohio Department of Natural Resources (ODNR) and Ohio Environmental Protection Agency (OEPA) to align our research portfolio with the needs of the state. Any proposal that addresses: 1) Ohio Sea Grant's priorities (OHSG), 2) Ohio's state agency priorities (OLEC, OEPA, ODNR), or 3) Ohio Sea Grant's strategic plan (ohioseagrant.osu.edu/research) will be considered. All research priorities can be found in Appendix 1 of this document and are also found on the Ohio Sea Grant webpage (ohioseagrant.osu.edu/research/funding).

Ohio Sea Grant encourages all applicants to apply for this funding opportunity. Projects that build or strengthen partnerships with communities or organizations are highly valued, including partnerships with community colleges, community-based organizations, and more. In addition, preference for funding may be given to untenured faculty (Assistant Professor) and proposals that fund high school, undergraduate and/or graduate students.

Funding Schedule and Summary

- **Thursday, January 23, 2025, at 1:00 pm ET**– Ohio Sea Grant will host a webinar for investigators to discuss the proposal process, ask questions, and explore possible opportunities for collaboration.
- **Thursday, February 20, 2025, by 5:00 pm ET**– Applicants should submit a PDF version of their pre-proposal by accessing ohioseagrant.osu.edu/research/submit, selecting “2026-2028 Large Grant pre-proposal”, and uploading one PDF file.
- **Friday, March 14, 2025** – Applicants will be notified of the status of their pre-proposal (encouraged or discouraged from submitting a full proposal).
- **Thursday, May 8, 2025, by 5:00 pm ET**– Applicants should submit a PDF version of their full proposal by accessing ohioseagrant.osu.edu/research/submit, selecting “2026-2028 Large Grant full proposal”, and uploading one PDF file.
- **Thursday, July 31, 2025** – Applicants receive copies of external peer reviews.
- **Thursday, August 7, 2025, by 5:00 pm ET** – Deadline for Ohio Sea Grant to receive comments (one copy) from investigators wishing to respond to peer reviews.
- **Friday, September 12, 2025** – Applicants will be notified as to whether their proposal will be included in the omnibus proposal submitted by Ohio Sea Grant to the National Sea Grant Office.

Pre-proposal Instructions

The pre-proposal process allows investigators to propose projects and receive feedback without spending the time required to prepare a full proposal. **Pre-proposal submissions are required to submit a full proposal.** Pre-proposals will either be encouraged or discouraged to submit a full proposal; however, any pre-proposal that is submitted by the pre-proposal deadline is eligible to submit a full proposal. Successful completion of the pre-proposal process and being encouraged to submit a full proposal does not guarantee funding.

The initiation date for new projects in this two-year submission can be February 1, 2026, or February 1, 2027 (one-year projects only). While projects can be approved for more than one year, funding is approved annually and is dependent upon federal appropriations. Contact Kristen Fussell (fussell.10@osu.edu) if you have any questions regarding this process.

A PDF version of the pre-proposal (with all pieces of the pre-proposal merged into one PDF document) must be submitted to Ohio Sea Grant by **5:00 pm ET on Thursday, February 20, 2025**. Applicants should submit by accessing ohioseagrant.osu.edu/research/submit, selecting “2026-2028 Large Grant pre-proposal” and uploading files. **Pre-proposals should include, in one single PDF document, the following:**

- I. Cover page: A cover page that includes the project title, and the name, affiliation, address, telephone numbers, and email address of each investigator.
- II. Project summary: A maximum of three pages of summary narrative (literature cited is not included in page maximum), which must include the rationale, objectives, and

methodology for the proposed project.

- a) Rationale: should be a concise statement of why this is an appropriate Sea Grant project. That is, what problem or opportunity is being addressed and why is it important. Discuss how the proposed project addresses one or more of the Ohio Sea Grant and/or agency priorities listed in the instructions. Include the potential end-users of the project information to be developed (e.g., management agencies, private sector). Collaboration with state, regional, and federal agencies is encouraged.
 - b) Objectives: should state what the investigator(s) intends to do. Measurable objectives are preferred. Quantifiable and hypothesis-based objectives are well received.
 - c) Methodology: should outline the steps and approaches to be taken. The methodology should be specific enough to allow peer reviewers to accurately evaluate your pre-proposal but not too detailed that only content experts can evaluate the strength and value of your proposed work.
- III. Budget form*: A budget is required for each year of the project. The budget form will calculate a summary budget combining years. The budget does not need the approval of appropriate university administrators (i.e., Sponsored Program Officer) at the pre-proposal stage. Instructions for the budget and budget justification can be found on the Ohio Sea Grant website (ohioseagrant.osu.edu/research/funding).
- IV. Budget justification: A budget justification describing all expenses for each year of the project.
- V. A two-page curriculum vita for each investigator/project member.
- VI. Letters of collaboration from partners are not required at the pre-proposal stage. A Letter of Collaboration form* will be strongly encouraged from all project partners at the full proposal stage.

*** Required forms can be found on the Ohio Sea Grant website**
ohioseagrant.osu.edu/research/funding

Pre-proposal Review Process: A panel of science and agency experts will review all pre-proposals. Full proposals submissions will be encouraged from those investigators receiving high reviews. However, those pre-proposals that are discouraged are not prohibited from submitting full proposals. The number of pre-proposals encouraged to submit full proposals is based on the quality of the pre-proposals and the amount of funding available. We expect to fund six full proposals and will encourage submission of full proposals by at least twice that number. The first investigator listed on each pre-proposal will be contacted with the results of the review on Friday, March 14, 2025.

Ohio Sea Grant uses the four criteria listed below for evaluating pre-proposals (project contribution, technical and scientific merit, diversity, equity, and inclusion, and qualifications and past record of investigators). Each criterion will be awarded points (see below; 50 points total).

The total score will be divided by five to get a total score on a scale of 0 – 10, with 10 being the highest possible rating. Pre-proposals will also be rated on a qualitative +, 0, - scale, with the (+) score meaning this is something we should encourage for a full proposal, (0) is neutral, and (-) stating this pre-proposal should not be encouraged to submit a full proposal.

Project Contribution (20 points): Importance, relevance and applicability of proposed project and its application to problems or opportunities with societal relevance, including the degree to which the proposal addresses the priorities of the National Sea Grant Program (seagrant.noaa.gov) and Ohio Sea Grant's 2024-2027 Strategic Plan (ohioseagrant.osu.edu/research/funding), and important state, regional, or national constituencies as outlined in the research priorities (Appendix 1).

Technical and Scientific Merit (20 points): The degree to which the activity will advance scientific understanding and whether the approach is technically sound and innovative, uses appropriate methods, includes clearly stated measurable objectives and mechanisms and is likely to achieve anticipated results in the time proposed.

Societal Relevance and Student Engagement (5 points): The degree to which a project advances knowledge of environmental topics relevant to communities (historically and/or currently); and/or broadens, highlights, or increases opportunities and full participation students with different experiences; and/or level of community engagement in research planning, design, goals, and decision-making processes to better understand the perspectives and needs and share commitment of its members.

Qualifications and Past Record of Investigators (5 points): Applicants possess the necessary education, experience, training, facilities and administrative resources to accomplish the project, with consideration to career stage and past performance.

Full Proposal Instructions

Full proposals will be due by **5:00 pm ET on Thursday, May 8, 2025** and will require the following sections:

- I. Cover page
- II. Project summary (3-page maximum)
- III. Project Narrative (12-page maximum)
 - a) Rationale
 - b) Objectives
 - c) Methodology
 - d) Anticipated outcomes and results
 - e) Project timeline
 - f) Outreach and education plan
 - g) Literature cited (not included in page limit)
- IV. Budget form*
- V. Budget justification
- VI. A two-page curriculum vita for each investigator/project member

- VII. National Oceanic and Atmospheric Administration (NOAA)'s Data Sharing Directive – Proposal Submission Phase*
- VIII. Approval from your university with appropriate authorized signatures. At Ohio State University, this is the PA-005. For investigators outside of Ohio State University, please complete the Subrecipient Letter of Intent form* and include your university's indirect cost rate agreement.
- IX. Letters of Collaboration are not required but are **highly encouraged** from all project partners*
- X. Suggested Reviewers

* Required forms can be found on the Ohio Sea Grant website (ohioseagrant.osu.edu/research/funding)

Proposal Element Descriptions

I. Cover page

A cover page that includes the project title, and the name, affiliation, address, telephone numbers, and email address of each investigator.

II. Project Summary

You can use the project summary you submitted for the pre-proposal stage and modify that based on suggestions from reviewers and the project narrative you are submitting. Total length of the objectives, methodology, and rationale must be kept to a maximum of three pages.

III. Project Narrative

The maximum length for the narrative is 12 pages. The length limit includes tables, figures, and images. Pages can be either single- or double-spaced. Please use a font no smaller than 11-point with 1-inch margins and include page numbers. Additional pages will not be considered. The project narrative must include the following subsections: (a) Rationale, (b) Objectives, (c) Methodology, (d) Anticipated Outcomes and Results, (e) Project Timeline, (f) Outreach and Education Plan and (g) Literature Cited. The literature cited section is not included in the 12-page length maximum. A description of the required contents of each subsection is provided below.

Included in project narrative:

- a. Rationale: Provide a description of the need for the proposed research, background information, and how the proposed project addresses one or more of the Ohio Sea Grant and/or agency priorities listed in the pre-proposal instructions. It is important to describe the anticipated benefits to resource managers, industry, the general public, or other constituent groups.

- b. Objectives: These can be taken directly from your project summary form or reworked for the proposal body. The objectives should state what the investigator(s) intends to do. Objectives that allow hypothesis-based testing have been well-received and measurable objectives are preferred.
- c. Methodology: Outline the methods, approaches, and techniques that will be used to meet the stated objectives/outcomes. The investigator should demonstrate the technical qualities of the proposed approach so that the review panel comprised of academics and agency staff can adequately assess the features of the proposed work. Be sure to describe any collaboration between universities and the public and/or private sector. It is highly recommended that all collaborations include a Letter of Collaboration form with proposal submission.
- d. Anticipated Outcomes and Results: What are the expected outcomes and results related to the creation of scientific knowledge? Provide a list of expected outcomes and deliverables that will result from your project. Explain how these outcomes will be directly and beneficially applied to the current and future needs of communities and local interested parties.
- e. Project Timeline: Include a timeline or schedule for the project in a format of your choosing.
- f. Outreach and Education Plan: Projects must include an outreach and education component and/or product development (e.g., tools, services, and training). For assistance with developing a compelling outreach and education plan, please contact Ohio Sea Grant outreach and extension experts. Contact information is included at the bottom of this document and on the Ohio Sea Grant website (ohioseagrant.osu.edu/about/people).

Additionally, proposals that support undergraduate and graduate students are encouraged. If students will be supported through this funding, please include the number of students, level (undergraduate vs. graduate), and a short mentoring plan. Examples of mentoring activities include but are not limited to: career counseling; training in preparation of grant proposals, publications and presentations; guidance on ways to improve teaching and mentoring skills; guidance on how to effectively collaborate with researchers from varied backgrounds and disciplinary areas; and training in responsible professional practices.

- g. Literature Cited: References are required if cited in the text of the proposal; citation of literature is essential to establish the familiarity and expertise of the project leader(s) to the subject in the proposal. Include full citation: name of authors, title, and location in the literature. This section does not count towards the 12-page limit.

IV. Budget Form

A budget is required for each year of the project. The budget form will calculate a summary budget combining years. Individual budgets are also required for all sub-awards on your project. The budget form and instructions are available on Ohio Sea Grant's website (ohioseagrant.osu.edu/research/funding).

V. Budget Justification

Your budget justification should specifically address what the funds you are requesting will be used for. Please describe each line used on the budget form. Instructions for the budget justification can be found on the Ohio Sea Grant website (ohioseagrant.osu.edu/research/funding).

VI. Vita

The maximum length is two pages for each investigator, co-investigator, and collaborator. Each vita must contain the investigator's complete address and e-mail address. Beyond this, we are quite flexible in the style of this document. A listing of current research support that is closely related to the project is typically a good idea. Listings of current and past positions held and honors are also often helpful. Publications written by the investigator, especially those that are peer reviewed and related to the research project proposed should be listed.

VII. NOAA Data Sharing Directive

Proposals submitted in response to this announcement must include a Data Management Plan describing how these requirements will be satisfied. To comply with this requirement, the Principal Investigator (PI) must complete the form "NOAA Data Sharing Directive Policy – Proposal Submission Phase" available on Ohio Sea Grant's webpage (ohioseagrant.osu.edu/research/funding). This will allow PIs to explain how the data and metadata will be provided and must include information for all applicable datasets related to your project(s). If funding is required for data curation and archiving, please make sure that funds are budgeted in the project proposal for data management. All data generated through Sea Grant funded projects are required to be completely QA/QC'ed (Quality Assurance and Quality Control) and made publicly accessible by two years after the end date of the project. If the proposed research will not generate environmental data, then a Data Management Plan will need to be stated as such: "This project will not generate any environmental data."

VIII. Subrecipient Letter of Intent and Indirect Cost Rate Agreement, or OSU's PA-005

Proposals submitted at the full proposal stage need to show approval of your proposed work and budget by your university with appropriate authorized signatures. If the proposal PI is not affiliated with Ohio State University (OSU), please complete the "Subrecipient Letter of Intent" form available on Ohio Sea Grant's webpage (ohioseagrant.osu.edu/research/funding) and obtain the appropriate signatures. Additionally, please include a copy of your university's federally negotiated indirect cost rate agreement. If the proposal PI is affiliated with OSU, please

attach a completed copy of the university's PA-005 form.

IX. Letters of Collaboration

Ohio Sea Grant **highly recommends** a completed Letter of Collaboration form from all project partners that are committing time and/or resources to your project. The Letter of Collaboration form can be found on Ohio Sea Grant's webpage (ohioseagrant.osu.edu/research/funding).

X. Suggested Reviewers

Contact details for at least five scientific peers (at least three outside of Ohio) who are qualified to provide an independent and knowledgeable review of your project. Suggested reviewers must be free from conflict of interest as defined by the [NOAA Policy on Conflict of Interest for Peer Review](#). Suggested reviewers cannot be beneficiaries of the proposed project; affiliated with applicant institution(s) in any way (including having received an honorarium from the institution within the last 12 months); employed at the same institution as the investigators within the last 12 months; colleagues the investigators have worked with in the last four years as project co-investigators, co-authors, etc.; or former mentors, advisors or students of investigators

Submission

Full proposals will be due by **5:00 pm ET on Thursday, May 8, 2025**, and will be immediately sent to reviewers. Please submit all materials in **one PDF document**. Applicants should submit by accessing ohioseagrant.osu.edu/research/submit, selecting "2026-2028 Large Grant full proposal", and uploading the file.

Review Panel

Experts from academia, state and federal management agencies, and/or non-governmental organizations will review full proposal submissions at both a written and panel review stage. Written reviews of the proposal (a minimum of two) will be emailed to the investigators on **Thursday, July 31, 2025** and written comments from investigators are due back to Ohio Sea Grant (emailed to Kristen Fussell; fussell.10@osu.edu) by **Thursday, August 7, 2025, by 5:00 pm ET**. The written reviews and your comments to the reviews will be included in the proposal packets read by the review panel members.

Ohio Sea Grant uses the six criteria listed below for evaluating full proposals. Each criterion listed below will be awarded points as listed below (100 points total). Point totals are then divided by ten to get a total score on a scale of 0 – 10 with 10 being the highest possible rating. Full proposals will also be rated on a qualitative +, 0, - scale, with the (+) score meaning this is something we should fund, (0) is neutral, and (-) stating this full proposal should not receive funding at this time.

Scores for all reviewed proposals will be ranked from highest to lowest. Projects recommended

for funding (i.e., included in the omnibus proposal submitted by Ohio Sea Grant to the National Sea Grant Office) will be selected in rank order until funding is exhausted with the following possible exceptions: (1) proposal was well written and highly ranked but was given a qualitative “-“ score because of a fatal flaw, (i.e.; research doesn’t fit our strategic plan, is duplicative of projects already underway, does not address a critical issue in Lake Erie, is outside the Lake Erie watershed) (2) PI is not in good standing, (3) to distribute funding across research topics, and/or (4) the proposal was well written and highly ranked but the review panel knew of a duplicative project recommended for funding under a different call for proposals. The latter occasionally occurs because many of our review panel members sit on other funding review panels.

We expect to fund at least six full proposals (depending on duration and budget of those selected). Investigators will be notified as to whether their proposal will be included in the omnibus proposal submitted by Ohio Sea Grant to the National Sea Grant Office on **Friday, September 12, 2025**. Proposals selected for inclusion in the Ohio Sea Grant omnibus will need to complete an Abbreviated Environmental Compliance Questionnaire and supply any necessary permits required to conduct the research. Research funding may be delayed until all necessary permits are received.

Proposal Evaluation

Sea Grant uses six criteria for evaluating proposals:

Project Contribution (30 points): Importance, relevance and applicability of proposed project and its application to problems or opportunities with societal relevance, including the degree to which the proposal addresses the priorities of the National Sea Grant Program (seagrant.noaa.gov) and Ohio Sea Grant’s 2024-2027 Strategic Plan (ohioseagrant.osu.edu/research/funding), and important state, regional, or national constituencies as outlined in the research priorities (Appendix 1).

Technical and Scientific Merit (30 points): The degree to which the activity will advance scientific understanding and whether the approach is technically sound and innovative, uses appropriate methods, includes clearly stated measurable objectives and mechanisms and is likely to achieve anticipated results in the time proposed.

Societal Relevance and Student Engagement (15 points): The degree to which a project advances knowledge of environmental topics relevant to communities (historically and/or currently); and/or broadens, highlights, or increases opportunities and full participation students with different experiences; and/or level of community engagement in research planning, design, goals, and decision-making processes to better understand the perspectives and needs and share commitment of its members.

Engagement Plan (15 points): Effective plan for ensuring that relevant groups contribute to, benefit from, and learn about project outcomes; degree to which potential users of the results have been and will be included in project planning and implementation. Letters of Collaboration are highly encouraged.

Qualification and Past Record of Investigators (5 points): Applicants possess the necessary education, experience, training, facilities and administrative resources to accomplish the project, with consideration to career stage and past performance.

Project Cost (5 points): Budget is realistic and commensurate with the project needs and timeframe, reasonable given the availability of program funds, and effectively leverages other resources to achieve the project outcomes.

Additional Information

- Funding may not be used for routine program implementation, regulatory compliance or mitigation, land acquisition, or on-the-ground restoration or construction.
- Proposals will not be accepted from investigators who are not current with their reporting requirements on previous projects funded by Ohio Sea Grant.
- Submitting electronic pre-publication manuscripts to our office of work resulting from your NOAA funding is a part of investigators' reporting requirements. Please cite related Ohio Sea Grant project numbers with reprint submission.

National Sea Grant Review: The staff of the National Sea Grant College Program will review all full proposals, external reviews, and investigator's comments obtained by Ohio Sea Grant and will ascertain that the 34 state Sea Grant programs are not duplicating research. The National Sea Grant College Program will provide concurrence with the projects recommended for funding prior to PI notification on September 12th, 2025. Additionally, this funding opportunity is contingent on the continued funding of the National Sea Grant College Program.

Ohio Sea Grant and Stone Laboratory Contact Information

Ohio Sea Grant works with communities and industries through its Outreach and Education specialists. For more information on specific areas of expertise, please visit our website at ohioseagrant.osu.edu/about/people.

Ohio Sea Grant and Stone Laboratory Administrative and Grants Staff (OSU):

Christopher Winslow, Director, winslow.33@osu.edu

Kristen Fussell, Associate Director, fussell.10@osu.edu

Erin Monaco, Business Coordinator, monaco.25@osu.edu

Ohio Sea Grant and Stone Laboratory Research, Outreach and Education Staff:

Brian Alford, Assistant Director of Stone Laboratory, alford.109@osu.edu

Justin Chaffin, Stone Laboratory Research Coordinator, chaffin.46@osu.edu

Tory Gabriel, Extension Program Leader and Fisheries Specialist, gabriel.78@osu.edu

Scott Hardy, Outreach Specialist, Environmental Social Science, hardy.116@osu.edu

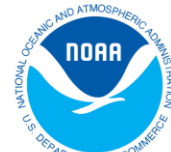
Joseph Lucente, Extension Educator, Community & Economic Development, lucente.6@osu.edu

Sarah Orlando, Ohio Clean Marinas Program Manager, orlando.42@osu.edu

Nicole Wright, Aquaculture Outreach Specialist and LEARN Coordinator, wright.1128@osu.edu

Sara Guiher, Outreach Specialist, Harmful Algal Blooms and Water Quality, guiher.10@osu.edu

Julie Kastanis, Outreach Specialist, Coastal Resiliency, kastanis.1@osu.edu



Appendix 1: Research Priorities

Ohio Sea Grant is one of 34 state Sea Grant programs that are part of the National Sea Grant College Program (National Oceanic and Atmospheric Administration, U.S. Department of Commerce). Ohio Sea Grant has four main research foci: 1) Healthy Coastal Ecosystems, 2) Sustainable Fisheries and Aquaculture, 3) Resilient Communities and Economies, and 4) Environmental Literacy and Workforce Development. Ohio Sea Grant also works with the Ohio Lake Erie Commission (OLEC), Ohio Department of Natural Resources (ODNR) and Ohio Environmental Protection Agency (OEPA) to align our research portfolio with the needs of the state. Any proposal that addresses: 1) Ohio Sea Grant's priorities (listed below; OHSG), 2) Ohio's state agency priorities (listed below; OLEC, OEPA, ODNR), or 3) Ohio Sea Grant's Strategic Plan (ohioseagrant.osu.edu/research) will be considered. Please read through all listed priorities, as some are cross-cutting and may be applicable to your research and are listed here under different topical areas.

Aquaculture

Research to address (1) aquaculture/aquaponics economics and profitability, (2) technology and production methods, and (3) on-farm safety, security, and sustainability. On-farm trials and research that can be applied to commercial scale operations are especially encouraged. More specifically (all OHSG):

- Comparisons among alternative fish-feed formulations with the goal to reduce fish meal in fish feed.
- Determination of the proper use and efficacy of vaccines for common fish diseases.
- Determination of the barriers preventing aquaculture farmers from producing food in the Great Lakes region and how these barriers can be overcome.
- Sustainable and economical ways to implement and track biosecurity from seed to sale.
- Comparisons of fish health, yields, and product quality of food fish between pond, aquaponic, and recirculating aquaculture systems.
- Farm-level tools and technology advancements to maximize yields and increase production system efficiencies and sustainability.

An additional \$40,000/year (\$80,000 total) may be requested by proposals that fill gaps in data or knowledge about the economic impacts, market opportunities, and drivers of business development and success in Ohio aquaculture. Examples include:

- Ohio Aquaculture Market Assessments for food fish and/or pond stocking (OHSG).
- Economic Impact Studies to evaluate the economic contributions of the Ohio aquaculture industry (OHSG).

- Policy, regulatory or other studies that address barriers to entry or business development in Ohio aquaculture (OHSG).

Marine Debris and Emerging Contaminants

- Effects/impacts of plastics on aquatic species and humans. (OHSG)
- Environmental impacts of various trash trapping technologies (positive and negative, i.e., bycatch, sand ecosystems). (OHSG)
- Effectiveness of marine debris-removing technologies (e.g., SeaBin, BeBot and Pixie Drone) at removing items from the environment. (OHSG)
- A study that assists state agencies' (Ohio Department of Health and Ohio EPA) in the development of a fish consumption advisory methodology for Per- and polyfluoroalkyl substances (PFAS). (OEPA)
- PFAS in Lake Erie fishes, potential impact on consumption advisories, and comparisons to other exposure routes. (OHSG)
- Documentation of Selenium: mercury molar ratios in Lake Erie fish flesh of commonly consumed species. (OHSG)
- The Great Lakes (similar to other freshwater and marine systems around the world) are projected to experience acidification. Great Lakes Sea Grant programs are prioritizing research to a) elucidate spatiotemporal trends in pH within the Great Lakes region, b) consider potential effects of pH changes on physical, chemical and biological, including upper trophic level, dynamics of the Great Lakes and c) use social and natural science methods to explore management strategies regarding pH changes. Ohio Sea Grant is specifically looking for research related to the above topics in Lake Erie. (for NOAA perspective and priorities on Great Lakes Acidification Research see Chapter 11: https://oceanacidification.noaa.gov/wp-content/uploads/2023/02/ResearchPlan2020-2029_comp.pdf). (OHSG)

Economics and Coastal Community Development

- Economic feasibility of shrink wrap recycling program. (OHSG)
- Proposals that support development of decision support tools for community-based restoration. (OHSG)
- Social science proposals that document the social, economic, and environmental benefits of restoration projects that address nutrient runoff, habitat enhancement, public access, and beneficial use of dredged material. (OHSG)
- Further work on beneficial reuse of dredge material. This can build on previous work for agricultural applications or development of new uses. For example, research on small scale disposal options for beneficial use of dredged material such as for marinas that are

allowed to open lake dispose but would like to find a way to participate in beneficial use. (OLEC, OHSG)

- If a business becomes certified as sustainable (i.e., Clean Marinas, 4R Nutrient Stewardship, Clean Ports initiative, ODNR Sustainability Plan, etc.) are people more likely to support them and/or is it motivational? (OHSG)
- Economic impact of specific state priority restoration initiatives (e.g., Area of Concerns, H2Ohio, Lake Erie Protection Fund grant projects, etc.). (OHSG, OLEC)
- Are Ohioans willing to pay more to support environmental efforts (i.e., fee for shrink wrap recycling, environmental fee on vessels to support abandoned and derelict vessel recycling, added cost to pay for an aquatic invasive species boat wash station, etc.)? (OHSG)

Environmental Education

- Identifying and removing barriers for educators and their classes to engage with Lake Erie. (OHSG)
- Identifying and removing barriers for educators to bring what they are doing/learning at the lake to their own local watersheds. (OHSG)
- Education strategies and/or materials on Lake Erie coastal issues that are culturally relevant to seasonal workers in the vineyard and/or nursery industries. (OHSG)

Coastal Resilience

- Municipal sanitary/stormwater collection system resiliency. Are current systems able to adapt to future precipitation scenarios? How will the current infrastructure building design specifications hold up against the impacts of future precipitation scenarios? How do we design systems to deal with future precipitation scenarios. (OEPA)
- Use of drinking water treatment material (DWTM) in permeable pavement surface layers and underlying aggregate designed to temporarily store stormwater. (OEPA)
- Cost-benefit analysis of green vs. gray infrastructure that includes study of the overall effectiveness of each practice over its life cycle. (OLEC)
- Impact of future water temperature scenarios on recruitment and population dynamics of economically important sport fishes, with a focus on cool and cold-water fishes in Lake Erie. (ODNR)

Healthy Coastal Ecosystems

- Understanding of percid spawning and recruitment, including, but not limited to investigating recent lack of success in Yellow Perch recruitment in Lake Erie's central basin. (ODNR)
- Evaluating near-shore, "nature-based" shoreline practices for erosion reduction. (ODNR)

- Factors influencing the nutrient filtering efficiency of coastal wetlands. For projects related to the H2Ohio Wetland Program please reach out to Ohio Sea Grant to align with current initiative. (ODNR)
- Research on conservation/reintroduction/monitoring of imperiled native species and endemic ecosystems, particularly those associated with the islands – including plants, birds, mammals, non-game fishes, mussels, dragonflies, etc. (OHSG, OLEC)
- Understanding population dynamics of an economically and ecologically important bait fish species – Emerald Shiner in Lake Erie. (OHSG)
- Effects of wetland creation/mitigation/rehabilitation on native fish, bird, herpetology, mammal and invertebrate populations. If you build it, will they come? (OHSG, OLEC)
- Evaluate use of drinking water treatment material (DWTM) (that binds Heavy Metals: As, Ba, Cd, Co, Cr, Cu, Ni, Pb and Zn) blended with Lake Erie Dredge to remediate brownfields/industrial sites and urban lots similar to what was done at Glass City Metropark and Cleveland Land Bank Program. (OEPA)
- Research that aids control and management of aquatic invasive species. The Great Lakes Panel on Aquatic Nuisance Species Research Committee recently created a research agenda for invasive aquatic plant control in the Great Lakes:
<https://www.glpanel.org/wp-content/uploads/2024/04/Invasive-Aquatic-Plant-Control-Needs-Research-Agenda-FINAL-4.15.24.pdf>. (OHSG)
- Research on the potential for anaerobic digestion utilizing fish waste collected at local fish cleaning stations. (OHSG)
- Research that explores nutrient loading in Lake Erie and its tributaries specific to vineyards and/or family-owned nurseries. (OHSG)

Hypoxia

- Influence of hypoxia on distribution and behavior of Lake Erie fish assemblages. (ODNR)
- Develop an efficient and effective monitoring and reporting program for the hypoxic zone in Lake Erie (Western and Central basins) to measure progress towards reducing size and duration. Note: This priority is not expecting a modeling project – more of an empirical method to accurately describe and display observed hypoxia. Multiple and/or novel data sources of hypoxia are acceptable. (OEPA, OLEC)